

ELECTRONIC TAX SYSTEM AND TAX COMPLIANCE IN UGANDA

A CASE STUDY OF NAKAWA DIVISION

BY

NAKITENDE MOUREEN

REG NO: EJ18M15/152

**A RESEARCH DISSERTATION SUBMITTED TO THE FACULTY OF BUSINESS AND
ADMINISTRATION IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR
THE AWARD OF A MASTER'S DEGREE IN BUSINESS ADMINISTRATION OF
UGANDA CHRISTIAN UNIVERSITY, MUKONO**

DECEMBER, 2019

DECLARATION

I, **NAKITENDE MOUREEN**, declare that this is my original research dissertation and has not been presented in any Institution of higher learning for any academic award.

Signature

Date.....

NAKITENDE MOUREEN

REG NO: EJ18M15/152

APPROVAL

This is to certify that this research dissertation titled electronic tax system and tax compliance in Uganda by Nakitende Moureen has been conducted under my supervision and is now ready for submission to the faculty for examination

Signature:

Date:

MR. HENRY MUGISA

RESEARCH SUPERVISOR

DEDICATION

This work is dedicated to my beloved mother for the moral, spiritual and financial support that you gave me at all stages of my studies. Your support and care gave me a positive transformation in life and may the almighty God bless you abundantly.

ACKNOWLEDGEMENT

I am grateful to the almighty God who has given me life and enabled me to overcome all sorts of obstacles and enabled me to complete this research dissertation successfully.

To my supervisor Mr. Henry Mugisa, your guidance, suggestions, constructive criticisms and encouragements at all stages during the course of this research dissertation have all been intellectually resourceful and supportive without which I would not have completed. May God bless you.

I am also grateful to the SMEs in Nakawa Division for availing me with data without any hesitation and delays.

My acknowledgement with deep gratitude goes to all my friends for their academic and moral support especially their words of encouragement that made this research dissertation a success, may the Almighty God reward them with joy and peace.

TABLE OF CONTENTS

DECLARATION.....	i
APPROVAL	ii
DEDICATION.....	iii
ACKNOWLEDGEMENT.....	iv
TABLE OF CONTENTS	v
LIST OF TABLES.....	viii
LIST OF FIGURES	ix
LIST OF ACRONYMS	x
ABSTRACT	xi
CHAPTER ONE.....	1
INTRODUCTION	1
1.1 Introduction	1
1.2 Background to the study	1
1.3 Statement of the Problem	3
1.4 General objective.....	4
1.5 Specific objectives of the Study	4
1.6 Research Questions.....	4
1.7 Justification of the study.....	4
1.8 Scope of the Study	5
1.9 Conceptual framework	6
1.10 Operational definitions of the key words	8
1.11 Summary of the chapter.....	8
CHAPTER TWO.....	9
LITERATURE REVIEW	9
2.1 Introduction	9
2.2 Theoretical review	9
2.3 Conceptual review	10
2.4 Actual review of the objectives of the study	12
2.4.1 The effect of electronic tax system on tax compliance	12
2.4.2 The challenges faced by tax payers in using electronic tax system.....	14

2.4.3 The ways of improving electronic tax system to enhance tax compliance	16
2.5 Summary of literature review	18
2.6 Literature gap.....	18
CHAPTER THREE	19
RESEARCH METHODOLOGY	19
3.1 Introduction	19
3.2 Research design	19
3.3 Study Population.....	19
3.4 Sample size	20
3.5 Sampling technique	20
3.6 Data collection methods	21
3.7 Data Collection Instrument.....	21
3.7.1 Questionnaires	21
3.7.2 Interviews	21
3.8 Validity and Reliability	22
3.8.1 Validity	22
3.8.2 Reliability	22
3.9 Procedure of Data Collection.	22
3.10 Data Analysis.....	23
3.10.1 Quantitative data analysis.....	23
3.10.2 Qualitative data analysis.....	23
3.11 Measurement of the variables.....	23
3.12 Ethical issues	24
3.13 Limitations to the study	24
3.14 Conclusion	24
CHAPTER FOUR	25
PRESENTATION, INTERPRETATION AND ANALYSIS OF RESEARCH FINDINGS	25
4.1 Introduction	25
4.2 Response Rate.....	25
4.3 Background Characteristics of Respondents	26
4.3.1 Gender of the respondent.....	26

4.3.2 Age of the respondents	26
4.3.3 Education level of the respondents	27
4.3.4 Marital status of the respondents	28
4.3.5 Experience in running the enterprise	29
4.4 The effect of electronic tax system on tax compliance	30
4.5 The challenges faced by tax payers in using electronic tax system.....	35
4.6 The ways of improving electronic tax system to enhance tax compliance	38
4.7 The relationship between electronic tax system and tax compliance	42
4.8 Multiple Regression Analysis.....	43
4.9 Analysis of Variances (ANOVA).....	44
CHAPTER FIVE	45
SUMMARY, DISCUSSION, CONCLUSION AND RECOMMENDATIONS	45
5.1 Introduction	45
5.2 Summary and discussion of major findings	45
5.2.1 The effect of electronic tax system on tax compliance	45
5.2.2 The challenges faced by tax payers in using electronic tax system.....	45
5.2.3 The ways of improving electronic tax system to enhance tax compliance	46
5.3 Conclusions	46
5.4 Recommendations	46
5.5 Areas of future research.....	47
5.6 Chapter conclusion	47
References	48
APPENDICES	57
APPENDIX 1: QUESTIONNAIRE	57
APPENDIX 2: INTERVIEW GUIDE.....	61

LIST OF TABLES

Table 3.1: Sample size	20
Table 4.1: Response rate	25
Table 4.2: Gender of respondents	26
Table 4.3: Age of the respondents	27
Table 4.4: Education level of the respondents	28
Table 4.5: Marital status of the respondent	28
Table 4.6: Experience in running the enterprise	29
Table 4.7: The effect of electronic tax system on tax compliance	30
Table 4.8: The challenges faced by tax payers in using electronic tax system	35
Table 4.9: The ways of improving electronic tax system to enhance tax compliance	39
Table 4.10: The relationship between electronic tax system and tax compliance	42
Table 4.11: Multiple Regression Analysis	43
Table 4.12: Analysis of Variances	44

LIST OF FIGURES

Figure 1: Conceptual framework	7
--------------------------------------	---

LIST OF ACRONYMS

EARAs:	East African Revenue Authorities
EBM:	Electronic Billing Machines
ICT:	Information Communication Technology
IRS:	Internal Revenue Service
PEOU:	Perceived Ease of Use
PIN:	Personal Identification Number
PU:	Perceived Usefulness
SARS:	South African Revenue Service
SMEs:	Small and Medium Enterprises
SPSS:	Statistical Package for the Social Sciences
TAM:	Technology Acceptance Model
TRA:	Theory of Reasoned Action
URA:	Uganda Revenue Authority
VAT:	Value Added Tax

ABSTRACT

This study set to examine electronic tax system and tax compliance in Uganda. The study examined the effect of electronic tax system on tax compliance, established the challenges faced by the tax payers in using electronic tax system and suggested ways of improving the electronic tax system to enhance tax compliance.

A descriptive survey design using a sample of 242 respondents was adopted. Simple random sampling and purposive sampling techniques were used to select the respondents and data was collected using well designed structured questionnaires and interview guide.

Findings reveal that e-filing is easy for taxpayers which increases tax compliance as reflected by a mean value of 4.45. It was also established that tax payers are faced with a challenge of intermittent power supply and Internet outages and this is revealed by a mean of 3.63. It was also established that the use of automation of revenue collection system increases the revenue collection as shown by a mean value of 3.48.

In conclusion, there is a direct relationship between internet payment system, electronic billing machine, mobile payment system and tax compliance.

The study recommends that URA should adopt the use internet payment system to allow tax officers to issue assessments and refunds more quickly and lower corruption by reducing face-to-face interactions. URA should adopt the use mobile tax payment system so that clients can pay tax easily from anywhere by use of their mobile phone. In addition,EBM should be provided to different business enterprises across the country for easy accessible by customers, so that quick service and convenience is maintained hence increasing tax compliance.

CHAPTER ONE

INTRODUCTION

1.1 Introduction

This chapter presents, background to the study, statement of the problem, research objectives and questions, scope of the study, justification of the study, significance of the study and finally definition of key terms. The study seeks to examine electronic tax system and tax compliance in Uganda.

1.2 Background to the study

Tax compliance is very important for every government in the world as it enables the government to acquire assets which are not liable to debt and which the government uses to develop its economy (Ngotho & Kerongo, 2014). However, studies and other journal publication have shown that most governments face serious challenges in their revenue collection performance where governments are not able to collect sufficient funds to cover their budget expectations (Balunywa et al., 2014). For years, revenue collectors have not been channeling all the amount of money they collect to the Country Treasury (Ngotho & Kerongo, 2014).

For instance, revenue collection staff may collude with the revenue payers to avoid paying the prescribed charges and instead bribe the collector to shield against paying the correct amount to Tax Authority. The net effect could be a bigger loss, which would deter economic development of the country, growth, and improved service delivery (Namoit, 2012). To eliminate or significantly reduce corruption, achieve the country's financial objective and simplify payments, the Electronic Tax System has been introduced (Njanja, 2014). In fact, the world has witnessed an increase of Electronic Tax System meant to facilitate elimination of losses of revenue through corruption (Balunywa et al., 2014).

Electronic Tax System has been given attention through the increase in the use of information technology and this affects the tax administration. Nisar (2013) argues that current problems in public taxation stress the need of developing a system of tax assessment and collection that

involves internet services. Therefore, Electronic Tax System is an online platform whereby the taxpayer is able to access through internet all the services offered by a financial authority such as the registration for personal identification number, filing of returns, payment of taxes and application for compliance certificate.

In United States of America, the introduction of electronic tax administration including electronic tax filing (e-filing) has been the largest in terms of citizens affected. Starting in the 1980s as a partnership between the Internal Revenue Service (IRS) and the tax preparer H&R Block, the program has developed to a successful public-private partnership. In fact, the IRS has been described as one of the most efficient tax collection agencies in the world (Fletcher, 2003). Recent announcements by the IRS indicate that e-filing has increased at an impressive rate since its introduction in the late 1990s. Statistical analysis shows that e-filing for individual taxpayers increased from an average of about 23% in 1999 and approximately 60% in 2007. More recent IRS information indicates an individual e-filing rate of 61% in 2008 and 69% in 2009 (Pippin and Tosun, 2014).

In South Africa, SARS e-filing is the official online tax returns submission portal for South African Revenue Service launched originally in 2001 through third-party companies, then expanded and taken in-house by SARS in 2006. In the 2015/2016 tax year, SARS e-filing processed 36.80 million electronic submissions and payments which is equivalent to 98.7% of all submissions and payments to SARS in South Africa (South African Government News Agency, 2016). SARS e-filing is a free, online process for the submission of returns and declarations and offer other related services.

Uganda Revenue Authority in 2005 embarked on a modernization drive that has culminated into an ambitious computerized system called electronic tax. The objective of the new system is to reduce the cost of tax payer complying with URA (Musoke and Mugalu, 2010). The purpose of electronic tax system and the domestic tax modernization program was to remove the inefficiencies associated with costs of movement by tax payers to URA offices to do business and present to tax payers a system that reduces their cost of compliance (Uganda Revenue Authority, 2009).

Electronic tax system forms part of the revenue collection reforms by Uganda Revenue Authority whose main motive is enhancing tax collections and increase revenue collection and thus, tax revenues have been increasing rapidly due to the country's rapid economic development accelerated by the new systems. In this regard, the planning and formulation phase of an elaborate electronic system strategy was done in the Uganda Revenue Authority Corporate Plan of 2009 and was implemented in the fourth corporate plan of 2011 (Ngotho & Kerongo, 2014).

Despite the introduction of the electronic tax systems to enhance tax compliance, levels of tax compliance remain low not only in Uganda but East Africa at large. This is evidenced in the East African Revenue Authorities Comparative Revenue Analysis Report of 2015 / 2016 that was published in May 2017, that one of the major challenges faced by the EARAs in revenue mobilization is low compliance levels.

In addition, since the inception of the electronic tax system by URA in June 2009, it is not clear how the new system has improved tax collection, enhanced administration, reduced compliance costs and improved tax compliance hence necessitating this study.

1.3 Statement of the Problem

Currently, URA trains taxpayers, organises workshops and seminars with an aim of informing the public about electronic tax systems. Despite of the introduction of electronic tax system, tax compliance levels remain low and tax collections are below the targets set by URA (Kabafunzaki, 2010). This is evidenced in the Revenue Performance Report of FY 2017/2018 which shows that net revenue collection of UGX 14,456.11 billion was collected. However, the collections were UGX 606.32 billion below the FY 2017/2018 target of UGX 15,062.43 billion (URA Revenue Performance Report, 16th July 2018). In financial year 2016/17, URA was given a net revenue target of UGX 13,177.15 billion but the net revenue collections for FY 2016/17 were UGX 12,719.63 billion with a deficit of UGX 457.51billion below the FY 2016/17 target (URA Revenue Performance Report, 2016/2017). In addition, the East African Revenue Authorities Comparative Revenue Analysis Report of 2015/2016 that was published in May 2017 points out that one of the major challenges faced by the EARAs in revenue mobilization is

low compliance levels. It was against this background that the researcher seeks to examine the effect of electronic tax system on tax compliance in Uganda.

1.4 General objective

The general objective of this study was to examine the relationship between electronic tax system and tax compliance in Uganda.

1.5 Specific objectives of the Study

The study was guided by the following objectives;

- i. To examine the effect of electronic tax system on tax compliance.
- ii. To establish the challenges faced by the tax payers in using electronic tax system.
- iii. To suggest ways of improving the electronic tax system to enhance tax compliance.

1.6 Research Questions

The study attempted to answer the research questions below;

- i. What is the effect of electronic tax system on tax compliance?
- ii. What challenges are faced by the tax payers in using electronic tax system?
- iii. What are the ways of improving the electronic tax system to enhance tax compliance?

1.7 Justification of the study

The Ugandan government relies heavily on taxes to fund its development expenditure. An increase or decline in tax revenues has a direct bearing on the economy of Uganda as a country. The study is likely to reveal the strengths or weaknesses associated with implementation of electronic tax system and its benefits not only to the authority but also to taxpayers thereby, increasing the rate of tax compliance in Uganda.

The finding of this study may be of great importance to Uganda Revenue Authority in establishing the impact of electronic tax system on tax compliance in terms of whether it leads to growth or decline of revenue collections. The Authority may also use the study to identify user

interaction challenges that can be improved for the smooth running of the system. The Authority may also observe and take note of the effect of electronic tax system on the cost of revenue collection.

The study findings may reveal the strengths or weaknesses associated with the implementation of new technology and its benefits to taxpayers.

Other government agencies may benefit from this study in understanding early the implementation challenges they might face in the application of online systems and also predictable end user reactions to the systems.

The findings of the study may also contribute to the existing body of knowledge and may form the basis for further research in the area of technology and tax compliance in Uganda.

1.8 Scope of the Study

This sub section covered content scope, geographical scope, and time scope.

Content scope

The constructs studied were; electronic tax system (internet payment system, electronic billing machine and mobile payment system) and tax compliance in Uganda.

Geographical scope

The study was carried out in Nakawa division located in Central Uganda. Nakawa Division lies in the eastern part of the city, bordering Kira Town to the east, Wakiso District to the north, Kawempe Division to the north-west, Kampala Central Division to the west, Makindye Division across Murchison Bay to the south-west and Lake Victoria to the south. The coordinates of the division are 0°20'00.0"N, 32°37'00.0"E (Latitude:0.333333, Longitude:32.616667). The location was appropriate because it has a large number of small and medium enterprises (Uganda Small Scale Industries Association 2016) and (Uganda Bureau of Statistics report 2017); there is a total of 1525 SMEs operating in Nakawa Division.

Time scope

Interest was in information relating to the period between 2012 and 2017. The period identified was expected to avail information that was fresh and recent. This period also shows low revenue collection with an increase in FY 2017/2018 according to URA.

1.9 Conceptual framework

According to Hobbs and Norton (2016), a conceptual framework is an analytical tool with several variations and contexts. It can be applied in different categories of work where an overall picture is needed. It is used to make conceptual distinctions and organize ideas. Strong conceptual frameworks capture something real and in a way that is easy to remember and apply.

The relationship of the independent variable (electronic tax systems) was reviewed to establish if there was any relationship between the three factors that is internet payment system, electronic billing machine and mobile payment system and tax compliance, a dependent variable measured by tax registration, tax filling, correct reporting and tax payment. Internet payment system is paramount in ensuring optimal revenue collection (Ndunda et al., 2015). Electronic Billing Machines have helped to cut down time spent on screening books of accounts which increases tax compliance by tax payers (Jahirul, 2016). Customers can pay their bills without having to actually move to the bank's premises using (Pariwat & Hataiseere, 2014).

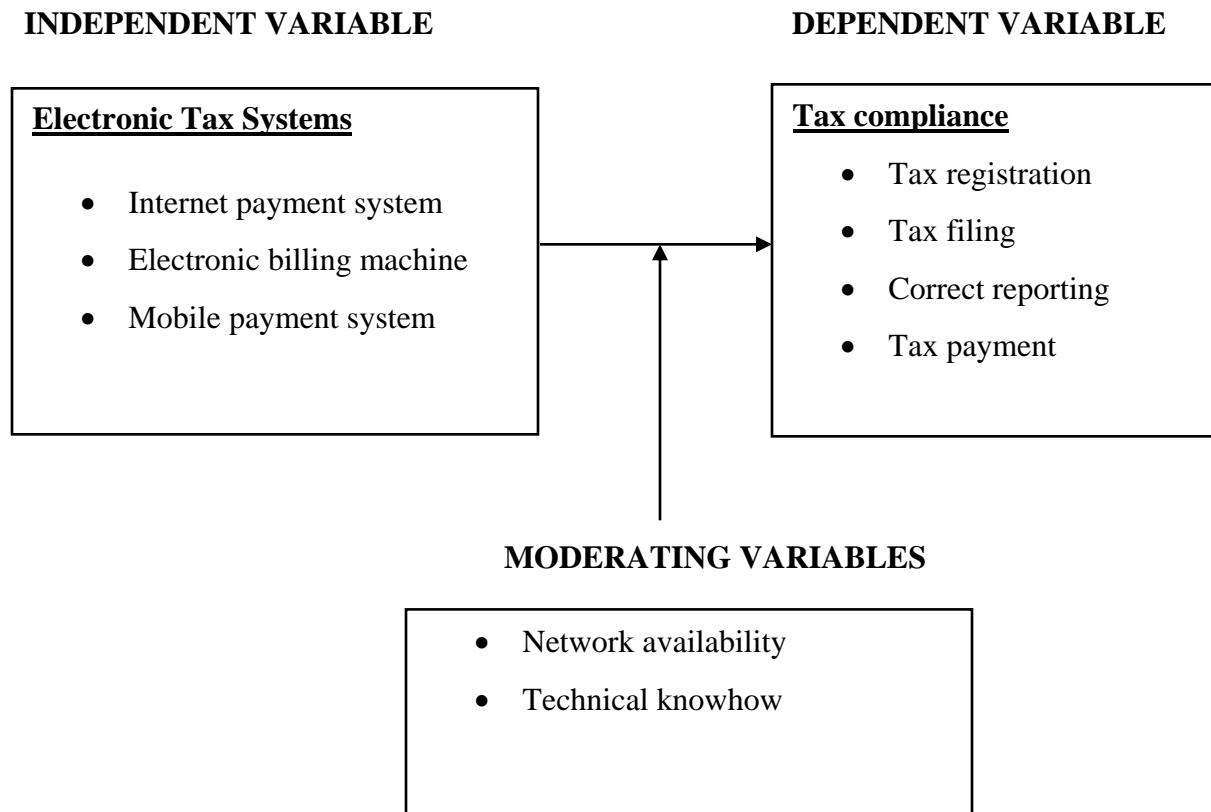
The computer literacy level (Technical knowhow) and accessibility to internet (Network) infrastructure has a direct impact towards the use of the online tax returns (Auyat, 2013). The online tax services are often internet based platforms and basic knowledge of the usage of the internet is required (Azmi & Bee, 2011). In this context, the user must be able to self-navigate on the web-based platform with minimal difficulties if any and use the self-help menus available in the website (Hussein et al., 2010).

According to Mandola (2013), any online e-government services need to be easy to use to enable those with little internet experience to effectively use the service. In this context, she found a correlation between an individual's internet experience, the availability and access to internet

facilities, and the ease in which the potential user can learn and use e-government services such as online filing.

The non-availability of internet has a direct impact on tax compliance. This is because for e-filing, tax registration, tax payment tax reporting to be a success, there should be internet connectivity and without it, all the above do not succeed.

Figure 1: Conceptual framework



Source; *The framework is developed using ideas from different scholars like Andreoni, et al. (1998); Auyat (2013); Azmi & Bee (2010); Jahirul (2016); Mandola (2013); Ndunda et al. (2015); and Pariwat & Hataiseere (2014).*

1.10 Operational definitions of the key words

1.10.1 Electronic tax system: According to Dowe (2010), electronic tax system is a computerized tax administration system that is especially designed to handle general tax administration from registration, assessment, filing returns and processing of claims and refunds.

1.10.2 Tax Compliance: According to Allink and Kommer (2010), tax compliance is the timely filing and reporting of required tax information, the correct self-assessment of taxes owed, and the timely payment of those taxes without enforcement action.

1.10.3 E-filing: According to Allink and Kommer (2010), e-filing refers to the transmission of tax information directly to the tax administration using the internet.

1.10.4 E-payment: According to Allink and Kommer (2010), e-payment is defined as the transfer of money from a person's bank account to the tax administration's bank account using the internet.

1.11 Summary of the chapter

The chapter started with an introduction which outlined the key areas covered, this was followed by the background to the study. The Chapter proceeded with problem statement and handled the objectives of the study as well as research questions which were basically derived from the research objectives. Scope of the study was determined as content, geographical and time. The chapter tackled justification of the research and lastly handled operational definition of key terms.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter presents literature on the theoretical and conceptual review, the effect of electronic tax system on tax compliance, the challenges faced by tax payers in using electronic tax system and ways of improving the electronic tax system to enhance tax compliance. This was used to compare and establish the variations and/or similarities between this study findings and what literature provides.

2.2 Theoretical review

This study adopted Technology Acceptance Model (TAM) as the theoretical basis for analyzing and understanding electronic tax system and tax compliance in Uganda. The theory suggests that perceived usefulness (PU) and perceived ease of use (PEOU) of IT are major determinants of its usage. Perceived usefulness (PU) was defined as a person's belief that using a particular system would enhance his or her job performance and perceived ease of use (PEOU) was defined as a person's belief that using a particular system would be free of effort. Both PU and PEOU jointly influence citizens' intention. Davis et al. (1989) assert that the key purpose of Technology Acceptance Model (TAM) is to provide a basis for tracing the impact of external factors on internal beliefs, attitudes and intentions. Behavior Intention (BI) is a measure of the strength of one's intention to perform a specified behavior. According to intention-based theories, user adoption and usage behavior are determined by the intention to use IT. It is a kind of "self-prediction" or "behavioral expectation", indicated as one of the most accurate predictors available for an individual's future behavior (Davis, 1989). In predicting usage; TAM model might be useful within and across organizations for evaluating applications or technologies, or to

make comparisons between user groups or applications. This theory was relevant to the study as it emphasizes that using a particular system enhances compliance.

2.3 Conceptual review

Gellis (2011) describes electronic tax system as an online platform whereby the taxpayer is able to access through internet all the services offered by a financial authority such as the registration for a personal identification number, filing of returns and application for compliance certificate. Electronic taxation is an antagonistic process for collecting, evaluating and automating tax-related processes in order to increase productivity (Fu, Farn and Chao, 2016).

Electronic tax system is the system that has been developed to replace the old manual system. It is a web-enabled and secure application system that provides a fully-integrated and automated solution for administration of domestic taxes. It Enables Taxpayer internet based PIN registration, returns filing, payment registration to allow for tax payments and status inquiries with real-time monitoring of accounts (Waweru 2013). Gellis (2011), describes electronic tax system as an online platform whereby the taxpayer is able to access through internet all the services offered by a financial authority such as the registration for a personal identification number, filing of returns and application for compliance certificate. Electronic taxation is an antagonistic process for collecting, evaluating and automating tax-related processes in order to increase productivity (Fu, Farn and Chao, 2016).

Andreoni, Erard, and Feinstein (2008) defined tax compliance as taxpayers' willingness to obey tax laws in order to obtain the economy equilibrium of a country. Kirchler (2007) perceived tax compliance as the most neutral term to describe taxpayers' willingness to pay their taxes. Somasundram (2013) defined tax compliance as taxpayers' ability and willingness to comply with tax laws which are determined by ethics, legal environment and other situational factors at a particular time and place. Similarly, tax compliance is also defined by several tax authorities as the ability and willingness of taxpayers to comply with tax laws, declare the correct income in each year and pays the right amount of taxes on time (Internal Revenue Service Act, 2000 Act592). Alm (2011) defined tax compliance as the reporting of all incomes and payment of all taxes by fulfilling the provisions of laws, regulations and court judgments.

Maxwell, (2013) defines tax compliance as the degree to which the tax paying community meets the tax obligation as set out in the appropriate legal and regulatory provisions. According to Maxwell, taxpayer compliance depends on economic incentives embedded in the tax structure and the effectiveness in detecting and penalizing non-compliance. According to Sarker (2013), Tax compliance can be defined as the degree to which a taxpayer complies (or fails to comply) with the tax rules of his/her country.

Tax compliance is the degree to which a taxpayer complies with the tax rules of his country. This also means making tax payments and producing and submitting tax returns to the tax authorities on time and in the required formats. The issue of tax compliance has been a vibrant issue in the tax word in Nigeria. Most citizens have the view that since the government doesn't provide us with the basic amenities needed, why pay tax? This is commonest reaction you get from citizens who evade taxes. Tax evasion cannot be totally eliminated but can be controlled by the tax authority. A more appropriate definition of compliance could include the degree of willingness to complying with tax laws and administration that can be achieved without immediate threat or actual application of enforcement activity. Tax compliance can be viewed in terms of tax avoidance and evasion. These two are distinguished in terms of legality, tax avoidance is legal while tax evasion is illegal. Compliance might therefore be better defined in terms of compliance with the tax laws of the nation (James et al., 2005).

Tax Compliance can be referred to as the process in which tax returns required to be submitted to the tax authorities are filed at the appropriate time with the accurate tax liability as required under the tax laws and regulations of a country (Friedman, 2011). Palil (2010) tax compliance is defined as taxpayers' willingness to comply with tax laws, declare the correct income, claim the correct deductions and exemptions, and pay all taxes on time. Tax compliance is the value of taxpayer's own time and resources, along with any out of pocket costs paid to tax preparers and other advisors, invested to ensure compliance with the laws (Holtzman, 2007). Compliance with the tax laws typically means true reporting of the tax base, correct computation of the liability, timely filing of the return and timely payment of the amounts due (Franzoni, 1999). Tax compliance is the provision of tax information at the proper time and ensuring that returns accurately report the tax liability (Carroll, 2007).

2.4 Actual review of the objectives of the study

2.4.1 The effect of electronic tax system on tax compliance

Jayakumar & Nagalakshmi (2016) stated that a well-designed electronic system can lower corruption by reducing face-to-face interactions. To ensure that taxes are collected efficiently and reduce opportunities for corruption, a generally accepted principle is that tax authorities should not handle money directly. Ideally, tax officials should have little direct contact with taxpayers and so less discretion in deciding how to treat them (Geetha & Sekar, 2014). E-filing is also easy, flexible and convenient for taxpayers. E-filing makes it possible to file returns from a taxpayer's home, library, financial institution, work place, tax professional's business or even stores and shopping malls. With an integrated e-filing and e-payment system, taxes can be filed and paid online from any place.

Lai (2015) conducted a study titled "Influencing Tax Compliance in SMEs through the Use of ICTs" and argued that Revenue collection is an important determinant of the economy of any country. The adequacy of government revenues allows the government to support its operations ranging from administrative activities, infrastructure constructions and service provision. The study aimed to show how e-transparent services address the challenge of voluntary tax compliance by SMEs in the republic of Tanzania. The study observed the following factors to influence voluntary compliance: Awareness of tax laws, business experience, the integrity of employees, low frequency of visitation by tax officers and training needs. Recommendations read that the revenue authority must use relevant ICT tools to positively promote these factors; as a result, the position of taxpayers to voluntarily file their tax returns will be enhanced.

E-filing systems increase the quality and quantity of information available to tax officers, enabling them to complete transactions faster and more accurately (Jahirul, 2016). Re-turns filed electronically have much lower error rates than paper returns and substantially cut the need to impose penalties and other disciplinary measures to foster compliance. The more efficient handling provided by electronic returns allows tax officers to issue assessments and refunds more quickly, and taxpayers know right away if their returns have been accepted by the tax authorities. E-filing lowers the cost of handling returns allowing administrative resources to be

reallocated to other tasks such as auditing, customer services and tracking non-compliance (Geetha & Sekar, 2014). The benefits of e-filing and e-payment systems extends to other electronic processes in the tax authority. E-filing and e-payment allow for better, safer data storage that can be used to implement a risk management system for auditing and enforcement. Automation helps establish a good system for tracking case files, which is essential for effective auditing and increases the speed and quality of data provided to auditors. In addition, e-filing systems are usually complemented by software that standardizes and facilitates processes for taxpayers, making compliance easier (Gupta, 2012).

According to Jahirul (2016), Electronic Billing Machines have helped to cut down time spent on screening books of accounts. Auditors used to spend hours investigating and going over massive documentation but with the EBM, audits are easily conducted and by use of Electronic Billing Machines, URA is now able to catch tax evaders with less effort. The same technology is used in countries such as Sweden, Germany, Greece, Ethiopia and Kenya to combat tax evasion because every registered machine records all transactions and indicates Value Added Taxes expected to be remitted to government funds. The use of Electronic Billing Machines discourages some taxpayers who were fond of keeping two receipt books or non-issuing tax receipts to clients, irrespective of the quantities bought, which encouraged tax evasion.

The best way to use EBMs to improve VAT compliance is to introduce them alongside two complementary interventions (Mascagni, 2016). Firstly, there is need for interventions that reinforce the issuing of EBM receipts where non-compliance is identified (receipt audits). These also provide data to establish true patterns of sales, which is used by the second intervention type. This second intervention uses targeted data analytics that automatically identifies when a firm is engaged in ‘irregular’ or ‘suspicious’ behaviour (e.g. issuing much fewer receipts than usual, issuing receipts without buyer-firm corroboration, or misclassifying items). The most powerful way in which EBMs can reinforce voluntary VAT compliance is by taking both approaches jointly; a data-driven approach to ‘spot’ irregular patterns and automatically ‘remind’ EBM users of non-complying behaviour.

E-payment has been designed to help individual customers and companies as well as the banks in eliminating or reducing some of the problems inherent in the settlement and payment process. Customers can pay their bills without having to actually move to the bank's premises (Pariwat & Hataiseere, 2014). They may also have access to their account information and even transfer money to other accounts in the comfort of their homes.

The implementation of e-payment is paramount in ensuring optimal revenue collection. Various ICT based revenue collection applications are available for use in the modern world today. These are simply referred to as Electronic Payment (E- payment) system (Ndunda et al., 2015), integrated into revenue collection. The E-payment system is accessible online through Point of Sale (PoS) terminal devices and physical agents (such mobile phones, debit cards, agents, mobile money). The E-payment is intended to help the companies using it to eliminating or reducing and minimizing corruption (some of the problems inherent in the settlement and payment process), by allowing customers to pay their bills without having to actually move to the firm premises. The customers have access to their account information and even transfer money to other accounts in the comfort of their homes (Wahab, 2012).

2.4.2 The challenges faced by tax payers in using electronic tax system

In Uganda, Akello (2014) reported that there are challenges such as intermittent power supply and Internet outages but says the tax body has made contingency plans to ensure that the system is operational 24/7. First, the e-Tax is hosted on a central server at their Kampala headquarters, which means that it's not affected by power or network outages even when power or the Internet is off in some parts of the country. The electronic filing process still confuses a lot of people because the web portal has many features and yet most people cannot understand some tax terms.

Sheikh (2015) explains that as with any new system, there have been numerous teething problems with the electronic system. First, there are two concurrent tax systems, manual and i-Tax systems, without either system recognizing the other. Taxpayers are also receiving demand emails from the Integrated Tax Management System. This is bound to create discrepancies in taxpayers' records, especially with regards to payment of tax obligations as well as submitting

returns. For instance, in the current setup, if a taxpayer pays taxes manually, the i-Tax system will not recognize the payment. Instead, the system automatically calculates penalties and interest on the perceived “missed” tax payments thereby leading to potential disputes between the URA and the taxpayer. Second, the i-Tax system lacks historical records of taxpayers. Its record keeping is a “going forward” type in that it only stores tax records of taxpayers from the time of registering for i-Tax onwards (Sheikh, 2015).

According to Lubua (2014), employees play a vital role in ensuring that the revenue authority collects its tax from clients at the right time. They also ensure that clients have the right knowledge of business taxation. Low integrity to employees is reported to significantly affect efforts by the revenue authority toward improving revenue collection. To a large extent, the use of ICTs in the Tanzanian revenue authority has addressed the challenge of corruptive behavior by employees. In areas such as custom department, clients are able to conduct own assessments. However, in domestic revenue there is a low usage of ICTs. Clients depend on employees for assessment and this assessment depends on employees’ rational ability and integrity.

According to Tan and Foo (2015), one of the first challenges of e-filing is security of personal data and tax data. Many other taxpayers still reject the idea of using e-filing due to the risk perception associated with it. According to Tan and Foo (2015), this risk perception could significantly influence the taxpayer’s or users’ intention to use it. The most widely known risk that everyone refers to is lack of internet security. Another risk which Tan and Foo (2015) talk about is the possibility that confidential personal information could be intercepted and stolen by fraudster during transmission.

Empirical evidence shows that there is resistance to the use of e-filing. For example, Ling (2018) maintains that many studies around the world have shown taxpayer’s resistances to the use of e-filing system, hence it is a big challenge to the authorities.

The next challenge is related to limited cost saving. According to Coolidge and Yılmaz (2014), many in the international donor community supporting tax reforms had assumed that e-filing would reduce tax compliance costs for taxpayers, however their survey evidence from

investment climate work conducted by the World Bank Group shows that this is not necessarily the case. According to Röcker (2018), many acceptance theories such as technology acceptance Model (TAM) and Theory Reasoned Action (TRA) assumed that taxpayers could choose to adopt certain technologies based on individual cost benefit considerations.

Dwilson (2014) says another challenge with e-filing is its inability to provide automated online assistance to a taxpayer with a complex income structure. Therefore, for such taxpayers trying to get help on a complicated tax question from a website help-desk may not be nearly as useful as getting help from an in-person tax professional.

Some people would generally not be interested in e-filing because of a lack of computer knowledge. This was confirmed by Crews (2013), with references to some of the lawyers in Florida who did not want to use e-filing in their law firms due to lack of basic computer knowledge. It also confirms that e-filing is not only limited to use by tax authorities but has been adopted by the judiciary to make document management simple and quicker for lawyers (Crews, 2013).

2.4.3 The ways of improving electronic tax system to enhance tax compliance

The use of ICTs for self-assessment addresses the challenge of the integrity of employees and promotes voluntary compliance. Training is essential because it provides clients with the skills necessary in raising their attitude of voluntarily complying with taxation systems. In the Tanzanian revenue authority, employees organize seminars to educate stakeholders about the benefits of voluntary tax compliance (Lubua, 2014).

Crews (2013) said that lawyers feared using e-filing due to lack of computer knowledge and the best way to reduce anxiety is to gain comfort with the use of e-filing systems and develop a strong network of tech-savvy assistants or peers. This comfort level can be developed with education and support. Furthermore, he encourages users to take online training that is provided by the authorities. A study by Wahab (2012) also recommended customer education and wide spread deployment of e-payment point of sale terminals to merchants.

A study by Nyongesa (2014) recommended for decentralized ICT based tax collection systems and offices in the sub-counties in adoption of differentiation strategies in revenue collection role in Mombasa County. Among other strategies was; the remission of cash to the nearest bank and not to the cash offices, improved tax rates, widened the tax base, devolution of tax base to county government departments, improved controls on management of cash. However, the use of automation of revenue collection system would widely increase the revenue collection. The study recommends that the County Government of Mombasa needs to automate its revenue collection, through partnering with the regional banks whereby the tax payers will be given option of paying county fees through mobile money or branded credit cards via new revenue collection system. The study also recommends the development of revenue management capacity by training qualified personnel, establishing proper revenue management mechanisms), so as to enable the County to provide quality services to the people.

As part of its tax policy, a government may choose to encourage the use of electronic methods for many aspects of the economy. This may not only benefit the tax system, but also provide an incentive to move to more efficient methods for private enterprises. One particular area is e-invoicing. A standard electronic invoice format, for example, can reduce administrative costs for all companies using it. But without government involvement, it is hard to get momentum behind a particular format (Abdul, & Idris, 2016).

Governments may create automated prompts, which remind customers when they have filing or payment obligations due. These reminders can serve as a way of improving taxpayer satisfaction (helping them avoid an unintentional breach and subsequent penalties), but will also help the authority to improve the rate of compliance (Geetha & Sekar, 2014).

Rather than bringing a system online across the entire tax system at once, pilot studies should be done to allow for a proposed system to be tested in one particular circumstance, perhaps a particular geo-region or certain tax and then evaluated and improved before being rolled out on a larger scale. Specifically, the pilot study will run in parallel to the existing tax system and may be an optional system that taxpayers can participate in (Mascagni, 2016). This minimizes the impact of any problems in the pilot study, while still generating valuable feedback for the tax

authority. Larger companies may be happy to volunteer to participate in such pilot schemes if it will allow them more time to implement changes in their own processes.

2.5 Summary of literature review

From the Literature review, several researchers seem to concur that there is a relationship between electronic tax system and tax compliance. These conclusions were however confirmed or dispelled after empirical evidence was obtained from the research.

2.6 Literature gap

Most of the highlighted studies in the literature review did not explicitly address the effect of electronic tax system on tax compliance. The study by Ndunda et al. (2015) revealed that level of tax payment (compliance) affected optimal revenue collection but failed to show how use of modern collection system such as electronic tax system would influence revenue collection performance. Kinuthia and Akinnusi (2014) found that telecommunications infrastructure barrier was one of barriers to effectiveness of e-commerce but fell short of showing the impact of e-commerce on revenue collection. The study by Nyongesa (2014) found that the use of automation of revenue collection system would widely increase the revenue collection but it was not clear how the revenue collection would be influenced by e-payment. In fact, the study recommends that the County Government of Mombasa needs to automate its revenue collection without specifying the system to use.

Although the studies reviewed provided very useful information to the present study on electronic tax system and tax compliance, very few have addressed the efficiency of revenue collection as being influenced by; penalty payment system, clamping system, and control within the e-payments system in Nairobi County. A scarcity of literature in the area of study exists, particularly in Uganda. There was information gap especially in Uganda Revenue Authority in particular thus the essence of this very study.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter presents how the study was conducted. It comprised of research design, study population, sample size, sampling techniques, data collection methods, data collection instruments, quality control, procedure of data collection, data Analysis, measurement of the variables, ethical issues, and finally limitations to the study.

3.2 Research design

Saunders (2007) define research design as the general plan of how one will go about answering the research question(s) and that it contains a clear objective, derived from your research question specifying the sources which you intend to collect data, and consider the constraints that will inevitably have access to data, time, location and money as well as discussing ethical issues. This study adopted a descriptive survey design but cross sectional in nature so as to obtain information on variables in different frameworks but concurrently. The researcher also used quantitative approach.

3.3 Study Population

The study population was comprised of the owners and the workers of small and medium enterprises operating in Nakawa Division - Kampala District in Central Uganda. According to Uganda Small Scale Industries Association (2016) and Uganda Bureau of Statistics report of (2017), there was a total of 1525 SMEs operating in Nakawa Division. However, 649 SMEs of 1525 were fully categorized as metal fabricators, Hair salons, Bars and Restaurants, motor garages and carpentry workshops with the remaining 876 simply categorized as others (UBOS 2017). Thus for convenience in the data collection process, the study population was only comprised of the 649 SMEs that were currently categorized.

3.4 Sample size

The sample size was comprised of 242 SMEs in Nakawa Division. This was determined according to Krejcie and Morgan's (1970) table. According to the table, a population of 649 small and medium taxpayers can be represented by a sample size of 242 respondents.

Table 3.1: Sample size

Category of the respondents	Population	Sample Size	Sampling Technique
Metal Fabrication	86	40	Simple random sampling
Hair Salons	83	38	Simple random sampling
Bar & Restaurant	57	25	Simple random sampling
Motor Garages	42	18	Simple random sampling
Carpentry workshops	35	15	Simple random sampling
Shops	346	106	Simple random sampling
Total	649	242	

Source: Krejcie & Morgan (1970).

3.5 Sampling technique

The researcher used purposive and simple random sampling techniques to select and obtain respondents.

Purposive sampling involved identifying and selecting individuals or groups of individuals that are knowledgeable about or experienced with a phenomenon of interest (Cresswell and Plano-Clark, 2011). This sampling technique was used to select Chairpersons of different SMEs in Nakawa Division who were interviewed. The researcher used this technique because the respondents were knowledgeable and had a long experience in management matters.

Simple random sampling is a strategy that adds credibility to a sample when the potential purposeful sample is larger than one can handle where by it uses small sample sizes, thus the goal is credibility, not representativeness or the ability to generalize (Patton, 2001). This sampling technique was used to select SMEs in Nakawa Division who were expected to

participate in the research. The researcher used this sampling technique because each member in this population had an equal chance of being included in the sample.

3.6 Data collection methods

This study used both quantitative and qualitative data collection methods. Quantitative data was collected using a well-designed structured questionnaire that was filled by the staff of SMEs and qualitative data was obtained from key informant interviews with the chairpersons of different SMEs.

3.7 Data Collection Instrument

The researcher used questionnaires and interviews which were administered to the target respondents chosen by the researcher.

3.7.1 Questionnaires

These contain a set of questions that are arranged systematically and logically to achieve specific research objectives (Cohen, 1999). The questionnaire was used because it ensures confidentiality of responses and its time saving. The questionnaire contained both open and closed ended structured questions related to the study objectives and were distributed to the respondents and then collected after so as to get genuine information. 242 staff of SMEs were selected randomly to answer the questionnaires.

3.7.2 Interviews

The researcher carried out interviews with Chairpersons of SMEs in Nakawa Division. The researcher used interview since it makes it easier to get the right information from respondents. The researcher also used interview since it is highly sensitive hence giving first-hand information.

3.8 Validity and Reliability

3.8.1 Validity

Vogt (2007) defines validity as “the truth or accuracy of the research”. Saunders et al (2009) add that it is the extent to which the data collection instrument measures as well as the appropriateness of the measures coming to accurate conclusions. Validity tests were conducted for content, criterion and construct validity to test how well the instrument was representative, captures relationships between the variables as well as measured the concepts (Saunders et al, 2009; Vogt, 2007; and Sekaran & Bougie, 2010). This study utilized triangulation to ensure validity of research findings prior to the administration of the research instruments. This instrument was checked by experts including the supervisor of the researcher. Content validity ratio was used to calculate the Content Validity Index, using the formula below as advanced by Lawshe (1975).

$$CVI = \frac{\text{Total Number of items rated by all respondents}}{\text{Total Number of items in the Instrument}}$$

A content validity index of 0.7 and above qualifies the instrument for the study (Amin, 2005).

3.8.2 Reliability

Reliability is defined as the consistency of either measurement or design to give the same conclusions if used at different times or by different scholars (Vogt, 2007). The first step in ensuring reliability was by providing clear operational definitions of the variables under study as well as split-half reliability using Cronbach’s alpha (Sekaran & Bougie, 2010). If R^2 (Alpha) value equaled to 0.7 and above, then the instrument was considered satisfactory (Cronbach, 1951; Sekaran & Bougie, 2010).

3.9 Procedure of Data Collection.

The researcher obtained and used a letter of introduction from the Dean of faculty of Business and Administration of Uganda Christian University to collect data from the respondents as

evidence that the research was purely for academic purposes. The process started with the distribution of questionnaires with the accompanying letter to the respondents who filled in and returned the questionnaires.

3.10 Data Analysis

The data was analyzed both quantitatively and qualitatively as seen below;

3.10.1 Quantitative data analysis

In analyzing the data, the researcher's main aim was to establish whether the answers to the research questions were provided. In this case, the researcher used SPSS version 20 to analyze the data since it saves time and gives correct results of the findings and tabulation was applied using frequencies and percentages in the Validation of the statistical findings. This also helped in importing data from other sources, when data was organized as a database, including Excel.

3.10.2 Qualitative data analysis

In this section, related literature reviews were used to discuss the findings and the field notes were written down. Qualitative results were described according to people's responses and information obtained from the reports.

3.11 Measurement of the variables

The variables were measured by defining concepts. For instance, the questionnaire was designed to ask for responses about electronic tax system and tax compliance. These were translated into observable and measurable elements so as to develop index of the concepts. The researcher categorized the data collected in an orderly form using the 5-point Likert scale that was used on the questionnaire as indicated below where; 1= Strongly disagree, 2= Disagree, 3= Not sure, 4= Agree, 5= Strongly agree. Socio economic attributes like age, sex, employment period/duration of service, academic levels were measured at nominal and ordinal scales depending on the variables.

3.12 Ethical issues

The researcher ensured that no respondent suffered the effects of the research activities. The researcher ensured confidentiality, the respondents' participation was willingly, and the purpose of the research was declared to the respondents. The researcher also secured a letter of introduction from the University which provided appropriate identification of the researcher and the purpose of the research. The researcher also followed the necessary protocols and adhered to the ethical guidelines of the University regarding this research.

3.13 Limitations to the study

The results of the study could not be over generalized because the geographical scope was only one division in Kampala District.

The study was faced with the limitation of inability to reach as many respondents as possible due to their tight work schedules and the inability to get back all the questionnaires from the respondents.

3.14 Conclusion

The chapter introduced and explained the methodological aspects that were followed when carrying out the research constituting research design in which descriptive survey design but cross sectional in nature was used, study population, sample size, sampling techniques used, the data collection methods and instruments that were employed during the study, quality control of the instruments, procedure of data collection, data analysis, measurement of the variables, ethical considerations and limitations to the study. This set ground for chapter four which dealt with presentation, analysis and interpretation of the results of the study.

CHAPTER FOUR

PRESENTATION, INTERPRETATION AND ANALYSIS OF RESEARCH FINDINGS

4.1 Introduction

This chapter presents data presentation, interpretation and analysis of research findings. The chapter presents characteristic of respondent's background followed by presentation of study objectives. This chapter also includes the findings by the researcher through use of questionnaires, presentation of data in table forms, and computation of the response rate.

4.2 Response Rate

The study sought a sample of 242 respondents and consequently issued the same number of questionnaires. However, 187 questionnaires of the total number issued were returned as fully answered and complete. This represents a percentage response rate of 77.3%.

The table below shows the expected number of respondents, actual number of respondents and questionnaires not returned.

Table 4.1: Response rate

	Number of respondents	Percentage rate
Expected number of respondents	242	100%
Actual number of respondents	187	77.3%
Questionnaires not returned	55	22.7%

Source: primary data 2019

From table 4.1 above, the percentage of response rate of the study was 77.3%. Much as it was less than 100%, the researcher believes it was a good representation for the study because the majority of the responses captured the required data for the study.

4.3 Background Characteristics of Respondents

The findings regarding respondents' characters are revealed in the following tables; gender, age, level of education, marital status and experience in running the enterprise.

4.3.1 Gender of the respondent

Gender was considered as a variable in this study since the researcher wanted to find the gender of the respondents. This was coded into two i.e. male and female and the findings on this are tabulated in table 4.2 below;

Table 4.2: Gender of respondents

Gender	Frequency	Percentage
Male	109	58.3
Female	78	41.7
Total	187	100.0

Source: Primary Data 2019

The above table indicates that majority of the respondents 58.3% were male and 41.7% were female. This implies that males were more than females, meaning most SMEs in Nakawa Division are managed by males since they were the majority.

4.3.2 Age of the respondents

Age was considered as a variable in this study since the researcher wanted to find out which age group works in SMEs more than the other. This was coded into five i.e. between 18 and 25, between 26 and 35, between 36 and 45, between 46 and 55, 56 and above and the findings on this are tabulated in table 4.3 below;

Table 4.3: Age of the respondents

Age	Frequency	Percentage
Between 18 and 25	32	17.1
Between 26 and 35	76	40.7
Between 36 and 45	50	26.7
Between 46 and 55	24	12.8
56 and above	5	2.7
Total	187	100.0

Source: Primary Data 2019

The above table shows that 40.7% representing majority of the respondents were between the age of 26 and 35, 26.7% were between 36 and 45, 17.1% were between 18 and 25, 12.8% were between 46 and 55 while only 2.7% were 56 years and above. This implies that most respondents were between the age of 26 and 35, meaning that most SMEs in Nakawa Division are mostly managed by this age group since they were the majority. This also shows that the respondents were mature enough to understand the purpose of the study.

4.3.3 Education level of the respondents

This was a key variable in this study since the researcher wanted to find out the respondents with the highest level of education in Nakawa Division. This was coded into six i.e. None, Certificate/Diploma, Bachelor, Masters, PhD, others and the findings on this are tabulated in table 4.4 below;

Table 4.4: Education level of the respondents

Education level	Frequency	Percentage
None	27	14.5
Certificate/Diploma	55	29.4
Bachelor	96	51.3
Masters	3	1.6
PhD	1	0.5
Others	5	2.7
Total	187	100.0

Source: Primary Data 2019

The above table indicates that majority of the respondents 51.3% attained Bachelors, 29.4% attained Certificate/Diploma, 14.5% did not attain any level of education, 2.7% attained other levels of education, and 1.6% attained Masters, while only 0.5% attained PhD. This implies that majority of the respondents attained Bachelor's Degree while only few attained PhD. This means that SMEs in Nakawa Division are mostly dominated by those who attained Bachelor's Degree compared to those who attained other levels of Education.

4.3.4 Marital status of the respondents

Marital status was considered as a variable in this study since the researcher wanted to find out marital status of the respondents in Nakawa Division. This was coded into four i.e. Single, Married, Divorced, Widowed and the findings on this are tabulated in table 4.5 below;

Table 4.5: Marital status of the respondent

Marital status	Frequency	Percentage
Single	52	27.8
Married	117	62.6
Divorced	6	3.2
Widowed	12	6.4
Total	187	100.0

Source: Primary Data 2019

Results from the above table show that majority of the respondents were married 62.6%, followed by those who were single 27.8% while 6.4% were widowed and only 3.2% were divorced. This implies that most SMEs in Nakawa Division are dominated by those who are married, meaning that married people tend to work better since they have few problems compared to those who are single, divorced, and widowed

4.3.5 Experience in running the enterprise

This was considered as a variable in this study since the researcher wanted to find out how long the respondents had served in the enterprise. This was coded into four i.e. less than 1 year, between 1 and 3 years, between 4 and 5 years, 6 years and above and the findings on this are tabulated in table 4.6 below;

Table 4.6: Experience in running the enterprise

Experience in running the enterprise	Frequency	Percentage
Less than a year	13	7.0
Between 1 and 3 years	85	45.4
Between 4 and 5 years	61	32.6
6 years and above	28	15.0
Total	187	100.0

Source: Primary Data 2019

The above table shows that majority of the respondents 45.4% have spent between 1 and 3 years with the enterprise, followed by those who have spent between 4 and 5 years 32.6%, 15% have spent 6 years and above while only 7% have spent less than a year with the enterprise. This implies that most respondents have spent between 1 and 3 years with the enterprise meaning that the respondents have ample experience with tax compliance, and they were able to give precise information that was required by the researcher to complete the study.

4.4 The effect of electronic tax system on tax compliance

This was one of the key objectives of the study and the researcher wanted to find out the effect of electronic tax system on tax compliance. In order to achieve this, the researcher asked several questions and the respondents were requested to indicate their level of agreement and disagreement on these effects. The responses on this are indicated in table 4.7 below;

Table 4.7: The effect of electronic tax system on tax compliance

	Minimum	Maximum	Mean	Std. Deviation
A well-designed electronic tax system can lower corruption by reducing face-to-face interactions	1.00	5.00	2.32	.905
E-filing is easy for taxpayers which increases tax compliance	1.00	5.00	4.45	.569
E-filing is flexible for taxpayers which increases tax compliance	1.00	5.00	3.98	.695
E-filing is convenient for taxpayers which increases tax compliance	1.00	5.00	3.27	1.018
With an integrated e-filing and e-payment system, taxes can be filed and paid online from any place	1.00	5.00	4.13	.775
E-filing systems increase the quality and quantity of information available to tax officers	1.00	5.00	3.07	1.055
Electronic tax system allows tax officers to issue assessments and refunds more quickly	1.00	5.00	2.68	1.219
E-filing and e-payment allow better and safer data storage	1.00	5.00	3.79	.977
Electronic tax system helps to establish a good system for tracking case files	1.00	5.00	2.63	1.335
Electronic Billing Machines have helped to cut down time spent on screening books of accounts	1.00	5.00	3.78	1.032
Customers can pay their bills without moving to the bank's premises through electronic tax system	1.00	5.00	3.93	.929
The implementation of e-payment is paramount in ensuring optimal revenue collection	1.00	5.00	3.75	.993
Average			3.48	0.959
<i>n=187</i>				

Source: Primary Data 2019

The results on table 4.7 indicate that the average mean value is 3.48, which indicates that respondents agreed that electronic tax system has an effect on tax compliance. The average standard deviation is 0.959, which indicates that respondents had variation in responses regarding the claim that electronic tax system has an effect on tax compliance.

The study found that a well-designed electronic tax system can lower corruption by reducing face-to-face interactions. This is shown by the mean of respondents as computed by the system as 2.32. Nevertheless, the corresponding standard deviation of 0.905 suggests that respondents had variation in responses regarding the claim that a well-designed electronic tax system can lower corruption by reducing face-to-face interactions. The results in this section are in agreement with Jayakumar & Nagalakshmi (2016) who state that a well-designed electronic system can lower corruption by reducing face-to-face interactions. To ensure that taxes are collected efficiently and reduce opportunities for corruption, a generally accepted principle is that tax authorities should not handle money directly. To support the above findings, one of the respondents interviewed had this to say;

“Electronic tax system is good and it has helped to reduce on the corruption rate since payments are made online”

From the information revealed in table 4.7, respondents believe that e-filing is easy for taxpayers which increase tax compliance. This is revealed by a mean value of 4.45. This implies that the respondents strongly agreed that e-filing is easy for taxpayers which increase tax compliance. However, a standard deviation value of 0.569 under the same test revealed varied responses from the respondents interviewed. The standard deviation implies that a few respondents were not in agreement with the claim that e-filing is easy for taxpayers which increases tax compliance. The above findings are in line with Geetha & Sekar (2014) who asserted that e-filing is easy, flexible and convenient for taxpayers.

From table 4.7, it can be revealed that e-filing is flexible for taxpayers which increases tax compliance. This is shown by a mean value of 3.98 which implies that to a greater extent, the

respondents agreed that e-filing is flexible for taxpayers which increases tax compliance despite the standard deviation value of 0.695 under the same test which reveals varied responses from the respondents. The standard deviation value shows some respondents' dissatisfaction on the claim of e-filing being flexible for taxpayers which increases tax compliance. The above findings are in line with Geetha & Sekar (2014) who established that e-filing is flexible for taxpayers.

From the information collected from respondents according to table 4.7, it is clear that e-filing is convenient for taxpayers which increases tax compliance. This is revealed by a mean value of 3.27. However, a standard deviation of 1.018 reveals varied responses from the respondents interviewed over the same test. The standard deviation value also shows that respondents were in disagreement with the claim. The above findings are in agreement with Geetha & Sekar (2014) who stated that e-filing is convenient for taxpayers. E-filing makes it possible to file returns from a taxpayer's home, library, financial institution, work place, tax professional's business or even stores and shopping malls. To support the above findings, one of the respondents interviewed asserted that;

“Electronic tax system is a very convenient method since payments can be made from anywhere without necessarily going to URA offices or Bank”

Results from the above table 4.7 indicates that respondents strongly agreed that with an integrated e-filing and e-payment system, taxes can be filed and paid online from any place. This is shown by a mean of 4.13. However, a standard deviation of 0.775 is a manifestation of varied responses from respondents as far as the test is concerned. This implies that taxes can be filed and paid online from any place with an integrated e-filing and e-payment system which in turn increases tax compliance. This is in line with Geetha & Sekar (2014)'s assertion that with an integrated e-filing and e-payment system, taxes can be filed and paid online from any place.

The results in table 4.7 above reveal that respondents agreed that e-filing systems increase the quality and quantity of information available to tax officers as shown by a mean value of 3.07. This implies that e-filing systems increase the quality and quantity of information available to tax officers which in turn increases the level of tax compliance by tax payers. However, a standard deviation value of 1.055 shows variation in responses as far as e-filing systems increasing the

quality and quantity of information available to tax officers are concerned. The above findings are agreement with Jahirul (2016), who stated that e-filing systems increase the quality and quantity of information available to tax officers, enabling them to complete transactions faster and more accurately.

The results in table 4.7 above suggest that respondents agreed that electronic tax system allows tax officers to issue assessments and refunds more quickly. This is revealed by a mean value of 2.68. This means that electronic tax system allows tax officers to issue assessments and refunds more quickly. However, a standard deviation value of 1.219 suggests that there were varied responses from the respondents as far as this test was concerned. The above findings are agreement with Jahirul (2016)'s assertion that the more efficient handling provided by electronic returns allows tax officers to issue assessments and refunds more quickly, and taxpayers know right away if their returns have been accepted by the tax authorities.

The results in table 4.7 show a mean value of 3.79 which means that respondents agreed that e-filing and e-payment allow better and safer data storage. However, a standard deviation of 0.977 raises concerns regarding the claim that e-filing and e-payment allow better and safer data storage. These findings are in line with Gupta (2012) who stressed that e-filing and e-payment allow for better, safer data storage that can be used to implement a risk management system for auditing and enforcement.

The study found that electronic tax system helps to establish a good system for tracking case files. This is indicated by the mean value of 2.63 which shows that the respondents agreed that electronic tax system helps to establish a good system for tracking case files. However, a corresponding standard deviation value of 1.335 shows variation in the responses provided by the respondents about the claim that electronic tax system helps to establish a good system for tracking case files. According to Gupta (2012), automation helps establish a good system for tracking case files, which is essential for effective auditing and increases the speed and quality of data provided to auditors. In addition, e-filing systems are usually complemented by software that standardizes and facilitates processes for taxpayers, making compliance easier.

The analysis results in table 4.7 reveal that Electronic Billing Machines have helped to cut down time spent on screening books of accounts as reflected by a mean value of 3.78. However, there is variation in the response rates of the respondents regarding the claim that Electronic Billing Machines have helped to cut down time spent on screening books of accounts as revealed by a standard deviation of 1.032. The above findings are in line with Jahirul (2016), who states that Electronic Billing Machines have helped to cut down time spent on screening books of accounts. Auditors used to spend hours investigating and going over massive documentation but with the EBM, audits are easily conducted and by use of Electronic Billing Machines, URA is now able to catch tax evaders with less effort.

The results as reflected in table 4.7 show a mean of 3.93. This implies that the respondents agreed on the claim that customers can pay their bills without moving to the bank's premises through electronic tax system. However, a standard deviation of 0.929 raises concerns regarding the claim that customers can pay their bills without moving to the bank's premises through electronic tax system. The figure of standard deviation further reveals that the respondents had varied opinion about customers paying their bills without moving to the bank's premises through electronic tax system. The above results are in line with Pariwat & Hataiseere (2014), who reveal that e-payment has been designed to help individual customers and companies as well as the banks in eliminating or reducing some of the problems inherent in the settlement and payment process. Customers can pay their bills without having to actually move to the bank's premises.

The study found that respondents agreed that the implementation of e-payment is paramount in ensuring optimal revenue collection. This is indicated by the mean value of 3.75 which shows that they agree about the implementation of e-payment being paramount in ensuring optimal revenue collection. However, the corresponding standard deviation also revealed a value of 0.993. This shows that there is a clear variation in the responses provided by the respondents about the implementation of e-payment being paramount in ensuring optimal revenue collection. The above findings are in line with Ndunda et al. (2015) who established that the implementation of e-payment is paramount in ensuring optimal revenue collection. Various ICT based revenue collection applications are available for use in the modern world today. These are simply referred to as Electronic Payment (E- payment) system, integrated into revenue collection.

4.5 The challenges faced by tax payers in using electronic tax system

This was one of the key objectives of the study and the researcher wanted to find out the challenges faced by tax payers in using electronic tax system. In order to achieve this, the researcher asked several questions and the respondents were requested to indicate their level of agreement and disagreement on these challenges. The responses on this are indicated in table 4.8 below;

Table 4.8: The challenges faced by tax payers in using electronic tax system

	Minimum	Maximum	Mean	Std. Deviation
Tax payers are faced with a challenge of intermittent power supply and Internet outages	1.00	5.00	3.63	.982
The electronic filing process still confuses a lot of tax payers because of the many features in web portal	1.00	5.00	2.34	1.235
Taxpayers receive demand emails from the Integrated Tax Management System which creates discrepancies in taxpayers' records	1.00	5.00	2.22	1.117
The i-Tax system lacks historical records of taxpayers	1.00	5.00	2.58	.921
There is low usage of ICTs in domestic revenue	1.00	5.00	2.48	1.165
Many taxpayers still reject the idea of using e-filing due to the risk perception associated with it	1.00	5.00	2.84	.957
There is lack of internet security	1.00	5.00	2.62	1.011
There is resistance to the use of e-filing by some tax payers	1.00	5.00	3.24	.961
E-filing has inability to provide automated online assistance to a taxpayer with a complex income structure	1.00	5.00	3.06	.887
Some tax payers are not interested in e-filing because of a lack of computer knowledge	1.00	5.00	2.54	.979
Average			2.76	1.022
<i>n = 187</i>				

Source: Primary Data 2019

The results from table 4.8 indicate that the average mean value is 2.76, which means that respondents agreed that there are challenges faced by tax payers in using electronic tax system. The average standard deviation value is 1.022, which means that respondents had variation on the claim that there are challenges faced by tax payers in using electronic tax system.

From table 4.8, it can be revealed that tax payers are faced with a challenge of intermittent power supply and Internet outages. This is shown by a mean value of 3.63, although the standard deviation of 0.982 under the same test revealed varied responses from the respondents. This implies that tax payers are faced with a challenge of intermittent power supply and Internet outages which in turn affects the compliance level of the tax payers. The above findings are in line with Akello (2014) who revealed that there are challenges such as intermittent power supply and Internet outages but the tax body has made contingency plans to ensure that the system is operational 24/7. To support the above findings, one of the respondents interviewed had this to say;

“At times there is poor internet network which affects timely payment of taxes”

From the survey as reflected in table 4.8, it can be presumed that to a lesser extent respondents agreed that the electronic filing process still confuses a lot of tax payers because of the many features in web portal. This is revealed by a mean value of 2.34, although the standard deviation of 1.235 under the same test revealed significant variations in responses generated. According to Akello (2014), the electronic filing process still confuses a lot of people because the web portal has many features and yet most people cannot understand some tax terms.

Study findings reveal that respondents agreed that taxpayers receive demand emails from the Integrated Tax Management System which creates discrepancies in taxpayers' records. This is revealed by a mean of 2.22, although a standard deviation value of 1.117 suggested a variation in the responses generated for the test. The standard deviation value also shows that the respondents did not agree with the claim. The above findings are in line with Sheikh (2015), who established that there have been numerous teething problems with the electronic system. Taxpayers are

receiving demand emails from the Integrated Tax Management System. This is bound to create discrepancies in taxpayers' records, especially with regards to payment of tax obligations as well as submitting returns. For instance, in the current setup, if a taxpayer pays taxes manually, the iTax system will not recognize the payment.

Table 4.8 reveals that respondents agreed that the i-Tax system lacks historical records of taxpayers. This is revealed by a mean value of 2.58, although the standard deviation value of 0.921 reveals varied responses from the respondents interviewed. The standard deviation value also shows that some respondents disagreed on the claim that the i-Tax system lacks historical records of taxpayers. According to Sheikh (2015), the iTax system lacks historical records of taxpayers. Its record keeping is a "going forward" type in that it only stores tax records of taxpayers from the time of registering for iTax onwards.

The results in table 4.8 suggest that respondents agreed that there is low usage of ICTs in domestic revenue. This is revealed by a mean value of 2.48. However, a standard deviation value of 1.165 suggests that there were varied responses as far as this test was concerned. The above findings rhythm with Lubua (2014)'s assertion that in domestic revenue, there is a low usage of ICTs.

Results from table 4.8 further revealed that majority of the respondents agreed that many taxpayers still reject the idea of using e-filing due to the risk perception associated with it as reflected by mean value of 2.84. However, a significant standard deviation of 0.957 reveals a variation in the responses of the respondents, implying those respondents were not sure about the claim. The above findings rhythm with Tan and Foo (2015) who state that many other taxpayers still reject the idea of using e-filing due to the risk perception associated with it. According to Tan and Foo (2015), this risk perception could significantly influence the taxpayer's or users' intention to use it.

The study found that there is lack of internet security. This is indicated by the mean value of 2.62 which shows that respondents agree that there is lack of internet security. However, the corresponding standard deviation value of 1.011 revealed variation in the responses provided by the respondents about the claim that there is lack of internet security. The above findings show a

degree of agreement with Tan and Foo (2015) who emphasized that one of the first challenges of e-filing is security of personal data and tax data.

The results in table 4.8 above reveal that respondents strongly agreed that there is resistance to the use of e-filing by some tax payers as shown by a mean value of 3.24. This implies that there is resistance to the use of e-filing by some tax payers. However, a standard deviation value of 0.961 shows a significant variation in responses as far as resistance to the use of e-filing by some tax payers is concerned. The above findings are in line with Ling (2018), who stated that there is resistance to the use of e-filing and it is a big challenge to the tax authorities.

Study findings reveal that respondents strongly agreed that E-filing has inability to provide automated online assistance to a taxpayer with a complex income structure. This is revealed by a mean of 3.06, although the standard deviation of 0.887 seems to suggest variation in the responses generated for the test. This implies that E-filing has inability to provide automated online assistance to a taxpayer with a complex income structure. This also confirms Dwilson (2014)'s statement that the challenge with e-filing is its inability to provide automated online assistance to a taxpayer with a complex income structure.

From the survey, as reflected in table 4.8, it can be presumed that some tax payers are not interested in e-filing because of a lack of computer knowledge. This is revealed by a mean value of 2.54. However, the standard deviation value of 0.979 under the same test revealed significant variations in responses generated. The above findings are in line with Crews (2013) who argued that some people would generally not be interested in e-filing because of a lack of computer knowledge. For instance, some of the lawyers in Florida did not want to use e-filing in their law firms due to lack of basic computer knowledge.

4.6 The ways of improving electronic tax system to enhance tax compliance

This was one of the key objectives of the study and the researcher wanted to find out the ways of improving electronic tax system to enhance tax compliance. In order to achieve this, the researcher asked several questions and the respondents were requested to indicate their level of

agreement and disagreement on these ways. The responses on this are indicated in table 4.9 below;

Table 4.2: The ways of improving electronic tax system to enhance tax compliance

	Minimum	Maximum	Mean	Std. Deviation
The use of ICTs for self-assessment addresses the challenge of the integrity of employees and promotes voluntary compliance	1.00	5.00	2.74	.893
Training provides tax payers with the skills necessary in raising their attitude of voluntarily complying with taxation systems	1.00	5.00	3.00	1.005
Tax payers should take online training that is provided by the tax authorities	1.00	5.00	2.73	1.129
There should be customer education and wide spread deployment of e-payment point of sale terminals to merchants	1.00	5.00	3.37	.977
The use of automation of revenue collection system increases the revenue collection.	1.00	5.00	3.48	1.033
Government should encourage the use of electronic methods for many aspects of the economy	1.00	5.00	2.74	1.223
Governments should create automated prompts, which remind customers when they have filing or payment obligations due	1.00	5.00	3.43	1.072
Average			3.07	1.047

<i>n = 187</i>

Source: Primary Data 2019

The findings from table 4.9 indicates that the average mean value is 3.07, which means that respondents agreed that there are ways of improving electronic tax system to enhance tax compliance. The average standard deviation value is 1.047, which indicates that respondents had variation on the claim that there are ways of improving electronic tax system to enhance tax compliance.

Results from the above table 4.9 indicates that the use of ICTs for self-assessment addresses the challenge of the integrity of employees and promotes voluntary compliance. This is shown by a mean of 2.74. However, a standard deviation of 0.893 is a clear manifestation of varied responses from respondents as far as this test was concerned. This means that the use of ICTs for self-assessment addresses the challenge of the integrity of employees and promotes voluntary compliance. The above findings rhythm with Lubua (2014) who state that the use of ICTs for self-assessment addresses the challenge of the integrity of employees and promotes voluntary compliance.

The results in table 4.9 above reveal that respondents strongly agreed that training provides tax payers with the skills necessary in raising their attitude of voluntarily complying with taxation systems as shown by a mean value of 3.00. This implies that training provides tax payers with the skills necessary in raising their attitude of voluntarily complying with taxation systems. However, a standard deviation value of 1.005 shows variation in responses as far as training providing tax payers with the skills necessary in raising their attitude of voluntarily complying with taxation systems is concerned. The above findings show a degree of agreement with Lubua (2014) who argued that training is essential because it provides clients with the skills necessary in raising their attitude of voluntarily complying with taxation systems.

The results in table 4.9 suggest that respondents agreed that tax payers should take online training that is provided by the tax authorities. This is revealed by a mean of 2.73. This means that tax payers should take online training that is provided by the tax authorities so as to learn the

benefits of voluntary tax compliance. However, a standard deviation value of 1.129 suggests that there were varied responses as far as this test was concerned. The above findings are in line with Crews (2013) who encouraged users to take online training that is provided by the authorities.

From the information revealed in table 4.9, respondents strongly believe that there should be customer education and wide spread deployment of e-payment point of sale terminals to merchants. This is revealed by a mean value of 3.37, implying that there should be customer education and wide spread deployment of e-payment point of sale terminals to merchants. However, a standard deviation value of 0.977 under the same test revealed varied responses from the respondents interviewed. The standard deviation value also shows that respondents were not in agreement with the claim that there should be customer education and wide spread deployment of e-payment point of sale terminals to merchants. The above findings are in line with Wahab (2012) who recommended customer education and wide spread deployment of e-payment point of sale terminals to merchants.

From table 4.9, it can be revealed that the use of automation of revenue collection system increases the revenue collection. This is shown by a mean value of 3.48, although the standard deviation of 1.033 under the same test revealed varied responses from the respondents. The standard deviation value further shows respondents' dissatisfaction on the claim that the use of automation of revenue collection system increases the revenue collection. The above findings show a degree of agreement with Nyongesa (2014) who said that the use of automation of revenue collection system would widely increase the revenue collection.

From the information collected from respondents according to table 4.9, it is clear that government should encourage the use of electronic methods for many aspects of the economy. This is revealed by a mean value of 2.74. However, a standard deviation of 1.223 reveals varied responses from the respondents interviewed over the same test. The standard deviation value also shows that respondents were in disagreement with the claim that government should encourage the use of electronic methods for many aspects of the economy. This reaffirms Abdul, & Idris (2016) who asserted that as part of its tax policy, a government may choose to encourage the use of electronic methods for many aspects of the economy. This may not only benefit the tax

system, but also provide an incentive to move to more efficient methods for private enterprises. One particular area is e-invoicing.

The results in table 4.9 suggest that respondents strongly agreed that governments should create automated prompts, which remind customers when they have filing or payment obligations due. This is revealed by a mean of 3.43. However, a significant standard deviation of 1.072 suggests that there were varied responses as far as this test is concerned. The above findings are in line with Geetha & Sekar (2014), who revealed that governments may create automated prompts, which remind customers when they have filing or payment obligations due. These reminders can serve as a way of improving taxpayer satisfaction (helping them avoid an unintentional breach and subsequent penalties), but will also help the authority to improve the rate of compliance.

4.7 The relationship between electronic tax system and tax compliance

This was considered in this study and the researcher wanted to find out the relationship between electronic tax system and tax compliance. A Pearson's correlation test was run to show the relationship between electronic tax system and tax compliance. The level of acceptance of the relationship is when $P=0.005$ and below. The results on this are indicated in table 4.10 below;

Table 4.3: The relationship between electronic tax system and tax compliance

Correlations		Electronic tax system	Tax Compliance
Electronic tax system	Pearson Correlation	1	.602**
	Sig. (2-tailed)		.000
	N	187	187
Tax Compliance	Pearson Correlation	.602**	1
	Sig. (2-tailed)	.000	
	N	187	187

**. Correlation is significant at the 0.01 level (2-tailed).

Source: Primary Data 2019

Results from the above table 4.10 revealed that there is a positive relationship between electronic tax system and tax compliance equal to 0.602 and the p-value is .000 which is less than 0.01. This means that there is a significant relationship between electronic tax system and tax compliance. The implication here is that electronic tax system has a positive influence on tax compliance since there is internet payment system, electronic billing machine and mobile payment system.

4.8 Multiple Regression Analysis

Regression analysis was conducted between independent variable (electronic tax system) and dependent variable (tax compliance).

Table 4.11: Multiple Regression Analysis

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	T	Sig.
1	(Constant)	1.725	.045		.000	1.000
	Internet payment system	.558	.058	.558	9.576	.000
	Electronic billing machine	.088	.055	.088	1.598	.112
	Mobile payment system	.278	.053	.278	5.208	.000
a. Dependent Variable: Tax Compliance						

Source: Primary Data 2019

According to Table 4.11, internet payment system, electronic billing machine and mobile payment system predict 4.5% of tax compliance (Adjusted R Square = .045). The regression model was significant and thus reliable for making conclusions and recommendations. The most significant predictor of tax compliance was internet payment system (Beta= 0.558, t= 9.576, Sig.

= .000) followed by mobile payment system (Beta= 0.278, $t = 5.208$, Sig. = .000) and then electronic billing machine (Beta= 0.088, $t = 1.598$, Sig. = 0.112). The findings revealed that internet payment system and mobile payment system were strong predictors of tax compliance, whereas electronic billing machine did not register a significant effect on tax compliance.

4.9 Analysis of Variances (ANOVA)

Table 4.12: Analysis of Variances (ANOVA)

ANOVA ^a						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	117.276	4	29.319	102.096	.000 ^b
	Residual	69.724	183	.381		
	Total	187.000	187			
a. Dependent Variable: Tax Compliance						
b. Predictors: (Constant), Internet Payment System, Electronic Billing Machine, Mobile Payment System						

Source: Primary Data 2019

Table 4.12 reports the summary ANOVA and F statistic which reveals the value of F (102.096) is significant at 0.000 confidence level. The value of F is large enough to conclude that the set of independent variables (internet payment system, electronic billing machine and mobile payment system) are the major factors influencing tax compliance.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter presents summaries of study findings as per the study objectives, conclusions based on those findings and recommendations based on both the study findings and other relevant literature considered necessary and vital to be used in future to improve the study situation.

5.2 Summary of major findings

This section shows summary of the major findings in accordance with research objectives and questions.

5.2.1 The effect of electronic tax system on tax compliance

The study found that e-filing is easy for taxpayers which increases tax compliance as reflected by a mean value of 4.45. It was revealed that e-filing is flexible for taxpayers which increases tax compliance as reflected by the mean value of 3.98. Furthermore, with an integrated e-filing and e-payment system, taxes can be filed and paid online from any place, this is revealed by a mean value of 4.13.

5.2.2 The challenges faced by tax payers in using electronic tax system

The study found that tax payers are faced with a challenge of intermittent power supply and Internet outages and this is revealed by a mean of 3.63. It was also established that there is resistance to the use of e-filing by some tax payers as shown by a mean value of 3.24. It was also

found that E-filing has inability to provide automated online assistance to a taxpayer with a complex income structure and this is shown by a mean of 3.06.

5.2.3 The ways of improving electronic tax system to enhance tax compliance

The findings indicated that there should be customer education and wide spread deployment of e-payment point of sale terminals to merchants as reflected by a mean value of 3.37. It was also established that the use of automation of revenue collection system increases the revenue collection as shown by a mean value of 3.48. It was also found that governments should create automated prompts, which remind customers when they have filing or payment obligations due and this is revealed by a mean value of 3.43.

5.3 Conclusions

In conclusion, the study findings revealed a positive relationship between electronic tax system and tax compliance. This study concludes that there is a direct relationship between internet payment system, electronic billing machine, mobile payment system and tax compliance.

5.4 Recommendations

The study recommends that URA should adopt the use internet payment system to allow tax officers to issue assessments and refunds more quickly and lower corruption by reducing face-to-face interactions. URA and clients should subscribe to reliable internet providers for effective and efficient service delivery. URA should also employ skilled personnel with more experience on network management in order to ensure the reliability of network.

The study also recommends that URA should adopt the use mobile tax payment system so that clients can pay tax easily from anywhere by use of their mobile phone. This also helps the clients to check tax statement easily from anywhere by use of their mobile phone.

EBM should be provided to different business enterprises across the country for easy accessible by customers, so that quick service and convenience is maintained hence increasing tax compliance.

In addition, URA management should keep on upgrading their electronic tax system in order to have an up to date system for effective service delivery. URA management should ensure that there is country wide training to clients on usage of various e-tax applications in order to enhance tax compliance.

5.5 Areas of future research

To the future researcher, more research should be done on the following areas;

The effect of network reliability on electronic tax system

The effect of technical knowhow on electronic tax system

The effect of attitudes and culture on electronic tax system

The factors that influence tax compliance by SMEs.

The different ways of increasing tax compliance of SMEs.

5.6 Chapter conclusion

The chapter started with an introduction which outlined the key areas covered, this was followed by summary and discussion of major findings which were discussed in accordance with research objectives and questions. The chapter also handled conclusions, recommendations and areas of future research.

References

- Abdul, A & Idris, I (2016). *Implementing electronic tax filing and payments in Malaysia*, Kuala Lumpur, Malaysia.
- Akello, J. (2014). *Uganda: Despite Challenges, URA's E-Tax System Continues to Register Success*. The Independent (Kampala)
- Allink, M & Kommer, V (2010). *Handbook for tax administrations. Organizational structure and management of Tax Administrations*. Inter-American Center of Tax Administrations.
- Alm, J. (1991). A perspective on the experimental analysis of taxpayer reporting. *The Accounting Review*, 66(3), 577-93.
- Alm, J. (2011). Tax compliance with endogenous audit election rules. *Kyklos*, Vol. 46, pp. 27-45.
- Amin, M. E. (2005). *Social Science Research: Conception, Methodology and Analysis*, Makerere University Printery, Kampala, Uganda.
- Andreoni, J, Erard, B., and Feinstein, J. (2008). Tax compliance. *Journal of Economic Literature*, 36, 818-60.
- Auyat, M. (2013). E-Tax Service System and Its Adoption at Uganda Revenue Authority. *Interdisciplinary Journal of Contemporary Research in Business*, 2(4), 36–39.
- Azmi, A., & Bee, N. (2011). The Acceptance of the e-Filing System by Malaysian Taxpayers: A Simplified Model. *Electronic Journal of E-Government*, 8(1), 13–22.

- Balunywa, W., Nangoli, S., Mugerwa, G. W. Teko, J. & Mayoka, K. G. (2014). An analysis of fiscal decentralization as a strategy for improving revenue performance in Ugandan Local governments. *Journal of Research in International Business and Management*, 4(2), 28-36.
- Bird, R. (2010). Sub national Taxation in Developing Countries: A Review of the Literature. *Policy Research*. Working Paper 5450. Washington D.C.:World Bank.
- Carroll, J. (2007). “Compliance with the Law”: A decision making approach to taxpaying. *Journal of Law and Human behavior*. Vol. 13, No 3, pp.38-39.
- Cohen A. (1999). *The Mental Health of Indigenous Peoples: An International*. Overview. Nations for Mental Health, Geneva, World Health Organization. Available at: http://whqlibdoc.who.int/hq/1999/WHO_MNH_NAM_99.1.pdf.
- Coolidge, J. & Yilmaz, F., (2014). *Does e-Filing reduce Tax Compliance Costs, s.l.*: World Bank Group. [Online] Available from: https://www.wbginvestmentclimate.org/advisoryservices/regulatory-simplification/business-/upload/InPractice_Does_EFiling_Reduce_Tax_Compliance_Costs.pdf [Accessed - 26/08/2014]
- Cresswell, J. W. & Plano-Clark, V. L. (2011). *Designing and conducting mixed method research* (2nd ed.). Thousand Oaks, CA: Sage.

Crews, K. 2013. E-filing from the Local Coffee Shop: A Practical Look into Confidentiality, Technology, and the Practice of Law. *The Florida Bar Journal*, Florida.

Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika*, Vol.16, pp; 297- 334.

Davis, F.D. (1989). *Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology*. MIS Quarterly, Vol. 13, No 3, pp.318-339.

Dowe, (2010). E-Government Policy: Ground issues in e-filing system, *European Journal of Social Sciences* 21(13). 189-45

Dwilson, S.D. (2014). *Disadvantages of Electronic Filing*. [Online] Available from:

<http://www.finance.zacks.com/disadvantage-electronic-filing-7553.html> [Accessed: 1510- 2014].

Fletcher, P.D. (2003). *New Models of Collaboration: A Guide for Managers. IRS E-file: Electronic*

Tax Administration in the United States. Center for Technology in Government. University at Albany SUNY.

Franzoni, L. (1999). *Tax evasion and compliance*. Bologna.

Friedman, E. (2011). The determinants of unofficial activity. *Journal of Public Economics*, 76(3), 59-93.

Fu J.R, Farn, C.K and Chao, W.P. (2016). “Acceptance of electronic tax filing: a study of taxpayer

intention”, *Inform. Manage.* 43, 109-126.

Geetha R. and Sekar M. (2014). *Awareness and Satisfaction level of individual Tax payers in Coimbatore city, India* Research Journal of Management Sciences, 1(4),6-11

Gellis, H.C. (2011). How to Get Plugged into Electronic Tax Filing: *Journal of Accountancy*, 171

(6).

Gupta, M. (2012). The journey of e filing of income tax returns in India. *International Journal of Research in Commerce and Management*, 2(6).180.

Hobbs, R. and Norton, D. (2016). "*Towards a Conceptual Framework for Restoration Ecology*", *Restoration Ecology*, 4 (2), pp. 93–110

Holtzman Yair (2007). Challenges in Achieving Transparency, Simplicity and Administering of United States Tax Code. *Journal of management development*.

Hussein, R., Mohamed, N., Ahlan, A. R., Mahmud, M., & Aditiawarman, U. (2010). An Integrated

Model on Online Tax Adoption in Malaysia. *International Journal of Asian Social Science*, 3(2), 1–16.

Internal Revenue Service Act 2000 (Act 592), (2000) Accra, Assembly Press.

Jahirul, H. (2016). *Tax Evasion and Avoidance Crimes*. A Study on Some Corporate Firms of Bangladesh Unpublished Thesis, Eastern University, Bangladesh.

James, S., Sawyer, A., & Wallschutzky, I. (2005). The complexities of tax simplification: progress

in Australia, New Zealand and the United Kingdom. *Australian Tax Forum*, Vol. 14, No. 1, pp. 29-68.

Jayakumar, A and Nagalakshmi, C (2016), *Direct Tax Reforms: An overview*, Southern Economist,

July, 9-11.

Kabafunzaki, H. (2010). *Taxpayers cry out on e-tax*. The New Vision, 25th April 2010, Kampala.

Kinuthia, J. N. K. & Akinnusi, D. M. (2014). The magnitude of barriers facing ecommerce businesses in Kenya. *Journal of Internet and Information Systems*, 4(1), 12-27

Kirchler, E. (2007). *The Economic Psychology of Tax Behaviour*. Cambridge: Cambridge University Press.

Krejcie, R., & Morgan, D. (1970). Determining sample size for research activities. *Educational and Psychological Measurement*, 30: 607-610.

Lai, M. L. (2015). Electronic Tax Filing System: Benefits and Barriers to Adoption of System.

The Chartered Secretaries Malaysia, *Journal of the Malaysian Institute of Chartered Secretaries and Administrators*, July/August, 14-16.

Lawshe, C.H. (1975). A quantitative approach to content validity. *Personnel Psychology*, 28, 563-575. doi:10.1111/j.1744-6570.1975.tb01393.x

Ling, L.M. (2018). Electronic Tax Filing System: *Taxpayers' perspectives*. Seventh Wuhan

International Conference on e-business. 1(0) 338-343

Lubua F.D., (2014). *Sourcebook of income Tax Law in Tanzania*, University of Dar es salaam.

Mandola, V. (2013). Factors Influencing the Adoption and Use of Integrated Tax Management

System by Medium and Small Taxpayers in Nairobi Central Business District, Kenya.
Interdisciplinary Journal of Contemporary Research in Business, 2(2), 12–15.

Mascagni, G. (2016) “*From the Lab to the Field: A Review of Tax Experiments*”, ICTD

Working Paper 46, First published by the Institute of Development Studies in February 2016, © Institute of Development Studies 2016, ISBN: 978-1-78118-283-

Maxwell, S. (2013). “*Revenue Impacts of Uganda’s Trade Integration Strategy*”, a report prepared

for the Tax Policy Department, Ministry of Finance, Planning and Economic Development

Musoke, C. and Mugalu, M. (2009). *New tax system can’t be beaten*. The New vision.

Namoit, A. J. (2012). *The Expected Economic Impact of Devolution of Resources to the Counties:*

Case Study of Turkana County in Kenya. Unpublished Master of Business Administration Research, University of Nairobi, Nairobi.

Ndunda, J. M., Ngahu, S. T. & Wanyoike, D. (2015). Analysis of Factors Influencing Optimal

by County Governments in Kenya, A Case of Nakuru County. *International Journal of Economics, Commerce and Management*, III (5), 1114- 1129.

Ngotho, J. & Kerongo, F. (2014). Determinants of in Developing Countries: Kenya’s Tax

- Collection Perspective. *Journal of Management and BusinessAdministration*, 1(1). Available Online at: www.writersbureau.net/journals/jmba/. Retrieved on 4th June 2015.
- Nisar, T. M. (2013). E-governance in revenue collection and administration. *WIT Transactions on Information and Communication Technologies*, 36, 265-274.
- Njanja, A.O. (2014). *The effect of e-payment system on revenue collection by the Nairobi City County Government*. School of Business of University of Nairobi.
- Nyongesa, N. M. (2014). *Strategies Adopted by The County Government of Mombasa in Raising Revenue*. Unpublished MBA Research Project, Nairobi: University of Nairobi.
- Palil, M.R. (2010). *Tax knowledge and tax compliance determinants in self-assessment system in Malaysia*. Department of Accounting and Finance Birmingham Business School, The University of Birmingham
- Pariwat, S., & Hataiseree, R. (2014). *The Use of Cash, Cheques and Electronic Payment Services in Thailand; Changes and Challenges for Efficiency Enhancement*. Payments Systems Group, 73-87.
- Patton, M. Q. (2001). *Qualitative evaluation and research methods* (3rd ed.). Newbury Park, CA: Sage Publications.
- Pippin, S. & Tosun, M. (2014). Electronic tax filing in the United States: An analysis of possible success factors. *Electronic Journal of e-Government*, 12(1): 22-38.
- Röcker, C. (2018). Perceived Usefulness and Perceived Ease-of-Use of Ambient Intelligence

- Applications in Office Environments. *Journals of Human Technology Centre. Germany.*
1052 – 1061
- Sarker,T.,K (2013). Improving Tax Compliance in Developing Countries via Self-Assessment Systems. *Aisa-pacific tax bulletin vol. 9, no. 6 June 2003.*
- Saunders, M. L. (2007). *Research methods for business student.* New York: Prentice Hall.
- Saunders, M., Lewis P., & Thornhill, A. (2009). *Research Methods for Business Students* (5th edition). New Jersey: Prentice Hall.
- Sekaran, U. & Bougie, R. (2010). *Research Methods for Business: A Skill Building Approach* (5th edition). New Jersey: John Wiley and Sons.
- Sheikh (2015). E-Government Policy: Ground issues in e-filing system, *European Journal of Social Sciences* 21(13). 189-45
- Somasundram, N.R. (2013). *Tax evasion and tax investigation - a study on tax compliance management.* Chartered Secretary Malaysia, July, 20-24.
- South African Government News Agency (2016). *SARS e-Filing.* Retrieved 16 November 2016.
- Tan, V., and Foo, H. H. (2015). *Tax Policy for Emerging Markets: Developing Countries.*
- Uganda Revenue Authority (2009). “*Revenue Performance Report 2008/09*”, June Kampala
URA
Corporate Service Department, online: URA <http://www.ugrevenue.com>>.
- Vogt, W. P. (2007). *Quantitative Methods for Professionals.* Boston: Pearson.

Wahab, Y. A. (2012). *The Adoption and Use of Electronic Payment Systems in Ghana. A Case of E-Zwich in the Sunyani Municipality*. Unpublished Commonwealth Executive Masters in Business Administration Thesis. Kwame Nkrumah University of Science and Technology.

Waweru, W. (2013). *Nairobi County Government Missed Its Revenue Goal*. The Star.

APPENDICES

APPENDIX 1: QUESTIONNAIRE

QUESTIONNAIRE ON ELECTRONIC TAX SYSTEM AND TAX COMPLIANCE IN UGANDA

Dear respondent,

I am **Nakitende Moureen**, a student of Uganda Christian University Mukono, pursuing a Master's Degree in Business Administration. As a requirement in partial fulfillment for the award of the above mentioned course, I am required to carry out a field research study on “**electronic tax system and tax compliance in Uganda**”. I therefore request you to take a few minutes of your time and answer the questions below. Your responses will be used for academic purposes only and will be treated with utmost confidentiality. Thank you.

SECTION A: Background Characteristics *(Please tick where appropriate)*

1. Gender

Male ☐ Female ☐

2. Age

18-25 ☐ 26-35 ☐ 36-45 ☐ 46-55 ☐ 56 and above ☐

3. Highest level of education

None ☐ Certificate/Diploma ☐ Bachelor ☐ Masters ☐
PHD ☐ Other (Specify)

4. Marital status

Single ☐ Married ☐ Divorced ☐ Widowed ☐

5. How long have you been in this business (Years)?

0-1 ☐ 1-3 ☐ 3-5 ☐ 6 and above ☐

SECTION B: THE EFFECT OF ELECTRONIC TAX SYSTEM ON TAX COMPLIANCE

Under the following sections, please tick according to your level of agreement using a scale of; 1= Strongly Disagree, 2= Disagree, 3= Not sure, 4= Agree, 5= Strongly agree

	1	2	3	4	5
A well-designed electronic tax system can lower corruption by reducing face-to-face interactions					
E-filing is easy for taxpayers which increases tax compliance					
E-filing is flexible for taxpayers which increases tax compliance					
E-filing is convenient for taxpayers which increases tax compliance					
With an integrated e-filing and e-payment system, taxes can be filed and paid online from any place					
E-filing systems increase the quality and quantity of information available to tax officers					
Electronic tax system allows tax officers to issue assessments and refunds more quickly					
E-filing and e-payment allow better and safer data storage					
Electronic tax system helps to establish a good system for tracking case files					
Electronic Billing Machines have helped to cut down time spent on screening books of accounts					
Customers can pay their bills without moving to the bank's premises through electronic tax system					
The implementation of e-payment is paramount in ensuring optimal revenue collection.					

SECTION C: THE CHALLENGES FACED BY TAX PAYERS IN USING ELECTRONIC TAX SYSTEM

Under the following sections, please tick according to your level of agreement using a scale of; 1= Strongly Disagree, 2= Disagree, 3= Not sure, 4= Agree, 5= Strongly agree

	1	2	3	4	5
Tax payers are faced with a challenge of intermittent power supply and Internet outages					
The electronic filing process still confuses a lot of tax payers because of the many features web portal					
Taxpayers receive demand emails from the Integrated Tax Management System which creates discrepancies in taxpayers' records					
The i-Tax system lacks historical records of taxpayers					
There is low usage of ICTs in domestic revenue					
Many taxpayers still reject the idea of using e-filing due to the risk perception associated with it					
There is lack of internet security					
There is resistance to the use of e-filing by some tax payers					
E-filing has inability to provide automated online assistance to a taxpayer with a complex income structure					
Some tax payers are not interested in e-filing because of a lack of computer knowledge					

SECTION D: THE WAYS OF IMPROVING ELECTRONIC TAX SYSTEM TO ENHANCE TAX COMPLIANCE

Under the following sections, please tick according to your level of agreement using a scale of; 1= Strongly Disagree, 2= Disagree, 3= Not sure, 4= Agree, 5= Strongly agree

	1	2	3	4	5
The use of ICTs for self-assessment addresses the challenge of the integrity of employees and promotes voluntary compliance					
Training provides tax payers with the skills necessary in raising their attitude of voluntarily complying with taxation systems					
Tax payers should take online training that is provided by the tax authorities					
There should be customer education and wide spread deployment of e-payment point of sale terminals to merchants					
The use of automation of revenue collection system increases the revenue collection.					
Government should encourage the use of electronic methods for many aspects of the economy					
Governments should create automated prompts, which remind customers when they have filing or payment obligations due					

Thank you for your time.

APPENDIX 2: INTERVIEW GUIDE

AN INTERVIEW ON ELECTRONIC TAX SYSTEM AND TAX COMPLIANCE IN UGANDA

Dear respondent,

I am **Nakitende Moureen**, a student of Uganda Christian University Mukono, pursuing a Master's Degree in Business Administration. As a requirement in partial fulfillment for the award of the above mentioned course, I am required to carry out a field research study on **“electronic tax system and tax compliance in Uganda”**. I therefore request you to take a few minutes of your time and answer the questions below. Your responses will be used for academic purposes only and will be treated with utmost confidentiality. Thank you

1. How long have you been in this organization?
2. In those years, have you seen any form of electronic tax system in this organization?
3. If yes, which ones from the time you have been in this organization?
4. What are some of the effects of electronic tax system on tax compliance?
5. What do you think is the effect of internet payment/filing system on tax compliance?
6. What are some of the effects of mobile payment/filing system on tax compliance?
7. In your own view, what do you think is the effect of electronic billing machine on tax compliance?
8. What are some of the challenges faced by tax payers in using electronic tax system?
9. What do you think are some of the ways of improving electronic tax system to enhance tax compliance?

Thank you for your time and cooperation.